CLAIMS

1. A regenerated collagen fiber which is obtained by treating collagen with a monofunctional epoxy compound and an aluminum salt.

5

2. The regenerated collagen fiber of Claim 1, wherein said monofunctional epoxy compound is a compound represented by the following formula (I):

10

15

20

$$R - CH - CH_2 \qquad (I)$$

in which R indicates a substituent group represented by R_1 -, R_2 -O-CH₂- or R_2 -COO-CH₂-, R_1 in said substituent group indicates a hydrocarbon group having at least 2 carbon atoms or CH₂Cl and R_2 indicates a hydrocarbon group having at least 4 carbon atoms.

- 3. The regenerated collagen fiber of Claim 2, wherein said R₁ in the formula (I) indicates a hydrocarbon group having 2 to 6 carbon atoms or -CH₂Cl and R₂ indicates a hydrocarbon group having 4 to 6 carbon atoms.
- 4. The regenerated collagen fiber of Claim 1, 2 or 3, wherein a methionine group in said collagen is a sulfoxidized methionine group or a sulfonated methionine group.
 - 5. A process for preparing the regenerated collagen fiber of

Claim 1 which comprises treating collagen with a monofunctional epoxy compound, and then treating the same in such a way that 2 to 40 % by weight of an aluminum salt converted to an aluminum oxide basis is contained to said collagen.

5

6. The process for preparing a regenerated collagen fiber of Claim 5, wherein said collagen is treated with an oxidant and then treated with the monofunctional epoxy compound and the aluminum salt.

10

- 7. The process for preparing a regenerated collagen fiber of Claim 6, wherein said oxidant is hydrogen peroxide.
- 8. A process for setting a regenerated collagen fiber which comprises thermally setting the regenerated collagen fiber of Claim 1, 2 or 3 by means of hot water treatment at 20° to 100°C and heat drying treatment at 60° to 220°C.